

# Major Land Resource Area 058A

## Northern Rolling High Plains, Northern Part

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### Ecological site keys

#### Montana Legacy RRU Central ESD Key

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##### I. Site receives additional effective moisture

###### A. Soil saline (EC > 4 within surface 4") and water table > 24"

1 Seasonal high water table 24-40" from ground surface; salt tolerant plants dominate site – Saline Subirrigated (SSb) ... R058AC619MT – Saline Subirrigated (SSb) RRU 58A-C 11-14" p.z.

2 Seasonal high water table ≥ 40" from ground surface; salt tolerant plants dominate site; site regularly receives more than normal soil moisture because of run-in or stream overflow – Saline Overflow (SOv) ... R058AC618MT – Saline Overflow (SOv) RRU 58A-C 11-14" p.z.

###### B. Site not as above

1 Seasonal high water table ≥ 40" from ground surface; site regularly receives more than normal soil moisture because of run-in or stream overflow – Overflow (Ov) ... R058AC045MT – Overflow (Ov) RRU 58A-C 11-14" p.z.

2 Seasonal high water table < 40" from ground surface

i. Site located in the flood plain ... R058AC617MT – Riparian Subirrigated (RSb) RRU 58A-C 11-14" p.z.

ii. Site not located in flood plain

a. Seasonal high water table 24" to 40" – Subirrigated (Sb) ... R058AC044MT – Subirrigated (Sb) RRU 58A-C 11-14" p.z.

b. Seasonal high water table < 24" ... R058AC043MT – Wet Meadow (WM) RRU 58A-C 11-14" p.z.

##### II. Site does not receive additional effective moisture

###### A. Soil saline or saline-sodic within surface 20" or soils with natric or relic natric horizons.

1 No columnar structure; site dominated by salt tolerant plants – Saline Upland (SU) ... R058AC050MT – Saline Upland (SU) RRU 58A-C 11-14" p.z.

2 Columnar structure present, abrupt root or water restrictive clay layer present within 8" of soil surface ... R058AC054MT – Claypan (Cp) RRU 58A-C 11-14" p.z.

###### B. Site not as above

1 Coarse granular clay (typically acid shales), site contains sandy vegetation (e.g. Prairie sandreed) – Coarse Clay (CoC) ... R058AC614MT – Coarse Clay (CC) RRU 58A-C 11-14" p.z.

2 Site not as above

i. Soils shallow to very shallow (< 20" deep to bedrock, lithic, or paralithic root restrictive layer)

a. Soil very shallow (< 10" deep to bedrock, lithic, or paralithic root restrictive layer)

1) Bedrock is Shale ... R058AC052MT – Shale (Sh) RRU 58A-C 11-14" p.z.

2) Other ... R058AC058MT – Very Shallow (VSw) RRU 58A-C 11-14" p.z.

b. Soil shallow (10" – 20" deep to bedrock, lithic, or paralithic root restrictive layer)

1) Clay content < 32% in surface mineral 4" (able to make a ribbon < 2" long) ... R058AC057MT – Shallow (Sw) RRU 58A-C 11-14" p.z.

2) Clay content > 32% in surface mineral 4" (ribbon length > 2" long) – Shallow Clay (SwC) ... R058AC059MT – Shallow Clay (SwC) RRU 58A-C 11-14" p.z.

ii. Soils moderately deep, deep, or very deep ( $\geq 20$ " deep to bedrock, lithic, or paralithic root restrictive layer)

a. Soil skeletal to within 20" of soil surface (averages  $> 35\%$  rock fragments in the 10"-20" layer)

1) Sandy-skeletal within 10-20" of soil surface & typically consists of gravels and/or cobbles ... R058AC194MT – Shallow to Gravel (SwGr) RRU 58A-C 11-14" p.z.

2) Sandy-skeletal within 10" of soil surface – Gravelly (Gr) ... R058AC055MT – Gravel (Gr) RRU 58A-C 11-14" p.z.

b. Site not as above

1) Slope  $< 15\%$

a) Coarse sandy loam to fine sandy loam texture within surface mineral 4" ... R058AC042MT – Sandy (Sy) RRU 58A-C 11-14" p.z.

b) Site not as above

(1) Clay content is  $> 32\%$  in surface mineral 4" of mineral soil (ribbon  $> 2$ " long)

(a) Soil 32% to 45% clay within surface mineral 4" – Clayey (Cy) ... R058AC041MT – Clayey (Cy) RRU 58A-C 11-14" p.z.

(b) Soil  $> 45\%$  clay within surface mineral 2" – Dense Clay ... R058AC053MT – Dense Clay (DC) RRU 58A-C 11-14" p.z.

(2) Clay content is  $< 32\%$  in surface mineral 4" ... R058AC040MT – Silty (Si) RRU 58A-C 11-14" p.z.

2) Slope  $\geq 15\%$

a) Mollic epipedon present

b) Mollic epipedon not present ... R058AC616MT – Thin Breaks (TB) RRU 58A-C 11-14" p.z.